

Results of Measurement of Body Temperature with Glass Mercury Thermometer and Digital Axillary Thermometer on Adult Patients at a Hospital in Bandung, Indonesia

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Abstract

In other studies conducted by previous researchers comparing the results of the different methods of temperature measurement, a variety of significant and non-significant results have been seen. The purpose of this comparative research was to compare body temperature measurements taken using a glass mercury thermometer and a digital axillary thermometer on adult patients at a hospital in Bandung, Indonesia. The two groups' independent t-test was used to determine the difference. Twenty-two participants were chosen using convenience sampling technique. The data was collected using a mercury thermometer and digital axillary thermometer on the right axilla of each sample. The results show that the temperature of the body by using mercury thermometer and digital axilla is $38.6682 \pm 0,58585$ and $38,5636 \pm 0,57366$ respectively. The significance (2-tailed) of the statistical independent t-test results is $p=0.553$. The conclusion is that there are no significant differences in the body temperature measurements between a mercury thermometer and a digital thermometer on adult patients. The results of this study may allow for subsequent research into different modes of clinical measurements.

Keyword: Axilla Digital Thermometer, body temperature, comparison, fever, mercury